

CLAIMS

[1] A customer management system comprising a home appliance device connectable to a network and a management apparatus operable to manage information concerning a customer, said home appliance device and said management apparatus being connected to each other via the network,

wherein said home appliance device includes:

a reading unit operable to read the customer information concerning a customer from a recording medium;

a manufacturing number recording unit operable to hold a manufacturing number provided at a time of manufacturing of said home appliance device;

a transmission record preparing unit operable to prepare a transmission record that describes at least one of function information assigned on the basis of a usage form of said home appliance device, the customer information, and the manufacturing number; and

a transmitting unit operable to transmit the transmission record to said management apparatus, and

wherein said management apparatus includes:

a receiving unit operable to receive the transmission record;

a transmission record reading unit operable to read information described in the transmission record; and

an analysis unit operable to analyze the read information.

[2] The customer management system according to claim 1, wherein said analysis unit is operable to analyze a usage status of the function information used in each said home appliance device.

[3] The customer management system according to claim 1,

wherein the recording medium is an IC card.

[4] The customer management system according to claim 1,
wherein the manufacturing number recorded in said
5 manufacturing number recording unit is a global unique number.

[5] The customer management system according to claim 1,
wherein said management apparatus further includes:
a customer database operable to hold the customer
10 information recorded in the transmission record having been
received;
a merchandise database operable to hold the merchandise
information recorded in the transmission record having been
received;
15 an analysis information database operable to hold an analysis
result in said analysis unit; and
a record updating unit operable to update the record of the
information recorded in said customer database, said merchandise
database, and said analysis information database, after the
20 receiving of the transmission record.

[6] The customer management system according to claim 5,
wherein said management apparatus further includes
a determination unit operable to determine whether the
25 customer information included in the transmission record is a new
one, and
said record updating unit is operable to add and register the
customer information into said customer database in the case of
being determined as a new one by said determination unit.

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[7] The customer management system according to claim 1,
wherein said home appliance device further includes

a first-time determination unit operable to determine whether the customer information has been read by said reading unit, at a time of first-time usage,

said transmission record preparing unit is further operable to
5 prepare a first-time transmission record that includes at least the customer information and the manufacturing number, when the read of the customer information by said reading unit is determined as being the first time by said first-time determination unit, and

said transmitting unit is operable to transmit the first-time
10 transmission record to said management apparatus.

[8] The customer management system according to claim 7,

wherein said home appliance device further includes

a device control unit operable to bring said home appliance
15 device into a usage permitted state after the first-time transmission record is transmitted by said transmitting unit.

[9] A home appliance device connected via a network to a management apparatus provided on a manufacturer side and
20 operable to manage information concerning a customer, said device comprising:

a reading unit operable to read the customer information from a recording medium;

a manufacturing number recording unit operable to hold a
25 manufacturing number provided at a time of manufacturing of said home appliance device;

a transmission record preparing unit operable to prepare a transmission record that describes at least one of function information assigned on the basis of a usage form of said home
30 appliance device, the customer information, and the manufacturing number; and

a transmitting unit operable to transmit the transmission

record to the management apparatus.

[10] The home appliance device according to claim 9,
wherein said home appliance device further comprises
5 a first-time determination unit operable to determine whether
the customer information has been read by said reading unit, at a
time of first-time usage,

said transmission record preparing unit is further operable to
prepare a first-time transmission record that includes at least the
10 customer information and the manufacturing number, when the read
of the customer information by said reading unit is determined as
being the first time by said first-time determination unit, and
said transmitting unit is operable to transmit the first-time
transmission record to the management apparatus.

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[11] The home appliance device according to claim 10,
wherein said home appliance device further comprises
a device control unit operable to bring said home appliance
device into a usage permitted state after the first-time transmission
20 record is transmitted by said transmitting unit.

[12] A management apparatus that is connected to a home
appliance device connectable to a network and that is provided on a
manufacturer side and operable to manage information concerning a
25 customer, said apparatus comprising:

a receiving unit operable to receive a transmission record
transmitted from the home appliance device;

a transmission record reading unit operable to read
information described in the transmission record; and

30 an analysis unit operable to analyze a usage status of function
information used in each home appliance device, on the basis of the
information read by said transmission record reading unit.

[13] The management apparatus according to claim 12,
wherein said management apparatus further comprises
a first-time determination unit operable to determine whether
5 in the transmission record, a customer is a new one, or the
combination of a customer and the home appliance device is a new
one, or the home appliance device is a new one.

[14] A program used in a home appliance device connected via a
10 network to a management apparatus provided on a manufacturer
side and operable to manage information concerning a customer,
said program causing a computer to execute:

a reading step of reading the customer information
concerning a customer from a recording medium;

15 a manufacturing number recording step of holding a
manufacturing number provided at a time of manufacturing of the
home appliance device;

a transmission record preparing step of preparing a
transmission record that describes at least one of function
20 information assigned on the basis of a usage form of the home
appliance device, the customer information, and the manufacturing
number; and

a transmission step of transmitting the transmission record to
the management apparatus.

25 [15] The program according to claim 14,
wherein said program further comprises
a first-time determination step of determining whether the
customer information has been read at said reading step, at a time
30 of first-time usage, and

wherein at said transmission record preparing step, a
first-time transmission record that includes at least the customer

information and the manufacturing number is prepared when the read of the customer information at said reading step is determined as being the first time at said first-time determination step, and
at said transmission step, the first-time transmission record
5 is transmitted to the management apparatus.

[16] The program according to claim 15,
wherein said program further comprises
a device control step of bringing the home appliance device
10 into a usage permitted state after the first-time transmission record is transmitted at said transmitting step.

[17] A program used in a management apparatus that is connected to a home appliance device connectable to a network and that is
15 provided on a manufacturer side and operable to manage customer information, said program causing a computer to execute:
a receiving step of receiving a transmission record transmitted from the home appliance device;
a transmission record reading step of reading information
20 described in the transmission record; and
an analysis step of analyzing a usage status of function information used in each home appliance device, on the basis of the information read at said transmission record reading step.

25 [18] A customer management method used in a home appliance device connected via a network to a management apparatus provided on a manufacturer side and operable to manage information concerning a customer, said method comprising:
a reading step of reading the customer information
30 concerning a customer from a recording medium;
a manufacturing number recording step of holding a manufacturing number provided at a time of manufacturing of the

home appliance device;

5 a transmission record preparing step of preparing a transmission record that describes at least one of function information assigned on the basis of a usage form of the home appliance device, the customer information, and the manufacturing number; and

a transmission step of transmitting the transmission record to the management apparatus.

10 [19] The customer management method according to claim 18, wherein said customer management method further comprises

15 a first-time determination step of determining whether the customer information has been read at said reading step, at a time of first-time usage, and

wherein at said transmission record preparing step, a first-time transmission record that includes at least the customer information and the manufacturing number is prepared when the read of the customer information at said reading step is determined as being the first time at said first-time determination step, and

20 at said transmission step, the first-time transmission record is transmitted to the management apparatus.

[20] The customer management method according to claim 19, 25 wherein said customer management method further comprises

a device control step of bringing the home appliance device into a usage permitted state after the first-time transmission record is transmitted at said transmitting step.

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[21] A customer management method used in a management apparatus that is connected to a home appliance device connectable

to a network and that is provided on a manufacturer side and operable to manage customer information, said method comprising:

a receiving step of receiving a transmission record transmitted from the home appliance device;

5 a transmission record reading step of reading information described in the transmission record; and

an analysis step of analyzing a usage status of function information used in each home appliance device, on the basis of the information read at said transmission record reading step.

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